Shield EIFS

Polymer-modified, Cement-based Adhesive and Base Coat for Thermal Insulation Boards

TECHNICAL DATA SHEET

Description

Shield EIFS is a polymer-modified, cement-based adhesive and base coat, supplied as a ready-to-use blend of dry powders, and only requires the addition of clean water. **Shield EIFS** is designed to be used as a high-performance adhesive and basecoat/ render for the installation of thermal insulation boards.

Uses

- Adhesive and render/basecoat for thermal insulation boards; extruded or expanded polystyrene, or mineral wool.
- Indoor and outdoor applications.
- For walls and ceilings.
- Vertical, horizontal, and overhead applications.

Characteristics / Advantages

- Factory-controlled, pre-blended dry mix, only requires the addition of clean water.
- Excellent adhesion strength.
- Easy to apply.
- Water and frost resistant.
- Non-flammable.

Packaging

Shield EIFS is supplied in 25 kg bags.

Shelf Life and Storage

Shield EIFS has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

Safety Instructions

Like any cement-based product, **Shield EIFS** contains hydraulic cement and may cause irritation to the skin or eyes. For further information Refer to the Material Safety Data Sheet.

Typical Properties

Color	Grey
Appearance	Powder
Mixed Density (@ 23°C)	1.50 ± 0.10 g/ml
Working Time (@ 23°C)	1 hour
Compressive Strength (BS EN 1015-11) @28 days	≥ 8.0 MPa
Flexural Strength (BS EN 1015-11) @28 days	≥ 1.5 MPa
Application Thickness	
As an Adhesive	3 – 5 mm
As a Basecoat	2 – 3 mm per coat
Yield / 25 kg bag	20 Liters

Application Instructions

1. Substrate Temperature

+5°C to +40°C

2. Surface Preparation

The substrate to receive the insulation must be free from dust, loose material, surface contamination, or any materials that may reduce bond or prevent adhesion. Cement-based substrates should be in a Saturated Surface Dry (SSD) condition. Any surface water should be removed using an oil-free compressed air jet prior to placing the insulation.

Insulation boards must be firmly anchored in place. Any gaps between boards must be filled with foam or the same material and any surface irregularities larger than 2 mm must be sanded flush.

3. Mixing

Shield EIFS requires 5.50 – 6.00 Liters of potable water per 25 kg bag, depending on the desired consistency. For optimum results, mixing should be performed using a forced-action high-shear mixing paddle, powered by a heavy-duty electric mixing drill.

Add the pre-measured amount of water to a clean mixing bucket. Add **Shield EIFS** powder slowly to the water whilst mixing and continue mixing for 2 – 3 minutes until a smooth, homogenous, lump-free consistency is achieved. Allow this mixture to stand for 2 – 5 minutes and then re-mix for another 1 – 2 minutes prior to use.

4. Application

As an Adhesive:

Shield EIFS is applied to the adhesion face of the insulation only, avoiding coating the sides of the insulation. The method of application depends on the condition of the substrate:

Carding Method (smooth substrate surfaces):

Apply the mixed **Shield EIFS** to the entire adhesion surface and then scrape using a 10-mm notched trowel to leave an even thickness.

Pointing Method:

Apply the mixed **Shield EIFS** to the entire periphery of the board in a ~50 mm wide by 10 mm depth tape leaving a ~5 mm gap to the edges of the back surface. Equally space ~100 mm diameter by 10 mm depth dabs of the mixed adhesive to cover a minimum of 40% of the remaining area.

Affixing Insulation

Immediately after applying the adhesive to the substrate, place the board in position, align and press it firmly to the substrate ensuring that no adhesive gets into the board joints. Do not allow the **Shield EIFS** to form a skin before positioning the insulation board as bond strength will be affected.

Allow **Shield EIFS** to set completely before continuing any additional mechanical fixings, if required, or application of the basecoat.

As a Basecoat/ Render:

Apply a 2 – 3 mm thick layer of the mixed **Shield EIFS** to the affixed insulation board using a steel trowel to the entire surface of the insulation board.

Fully embed the reinforcing mesh in the wet base coat troweling from the center to the edge of the reinforcing mesh to avoid wrinkles. The reinforcing mesh shall be overlapped 100 mm at all joints and turned at least 200 mm at all corners, windows, and door openings.

The overall minimum base coat thickness shall be sufficient to fully embed and encapsulate the reinforcing mesh so that it is no longer visible. It is recommended to apply a second coat within 24 hours of the first coat, dependent on temperature and weather conditions. The total thickness of two coats must be 4 – 6 mm to ensure that the fiberglass mesh is well encapsulated in the base coat layer.

5. Cleaning

All mixing equipment and application tools should be cleaned immediately with clean water. Hardened material should be mechanically removed.

6. Curing

Curing is not normally necessary, but freshly applied material should be protected from rain and strong drying winds.

7. Overcoating

Finishes such as paints or stucco may be applied after the material has dried for 2 – 3 days depending on the weather conditions. Follow the application instructions for the overcoat material regarding any surface preparation, application, etc.

It is recommended to apply acrylic-based textured coatings from **MICShield**, such as **Shieldcoat GRA** or **Shieldcoat GRS**, after applying the water-based primer **Shieldprime AC**.

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Consumption and Coverage (For 25 kg bags)

Yield: ~ 20 Liters

Consumption: 1.20 – 1.25 kg/m²/mm thickness.

Coverage: ~ 20 m²/25 kg bag/mm thickness

Limitations

- Do not apply the product if the ambient temperature is less than 5°C.
- Hot weather practices should be adopted during application and curing if the temperature is above 35°C. In hot conditions, store the material in a cool environment prior to mixing and use chilled mixing water.
- If time exceeded 24 hours before applying the second coat, the surface must be saturated with water prior to application.

Technical Support

Refer to technical information, method statement, or contact technical support team for any inquiry.

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